ABSTRACT OF THE DISCLOSURE

When a laser beam is irradiated onto a semiconductor film, a steep temperature gradient is produced between a substrate and the semiconductor film. For this reason, the semiconductor film contracts, so that a warp in the film occurs. Therefore, the quality of a resulting crystalline semiconductor film sometimes deteriorates. According to the present invention, it is characterized in that, after laser beam crystallization on the semiconductor film, heat treatment is carried out so as to reduce the warp in the film. Since the substrate contracts by the heat treatment, the warp in the semiconductor film is lessened, so that the physical properties of the semiconductor film can be improved.